

BrushForm® I58 Mill Hardened Tempers

Materion Brush Performance Alloys' BrushForm® I58 Strip is a high-performance, heat treatable spinodal copper nickel tin alloy designed to provide optimal formability and strength characteristics in conductive spring applications such as electronic connectors, switches, and sensors. It is available in both pre-heat treated (mill hardened) and heat treatable (age hardenable) forms

CHEMICAL COMPOSITION (weight percent)

Alloy	Nickel	Tin	Copper
BrushForm® I58	14.5 - 15.5	7.5 - 8.5	Balance

PHYSICAL PROPERTIES*

Elastic Modulus	Density	Typical Electrical Conductivity	Coefficient of Thermal Expansion	Relative Magnetic Permeability	Poisson's Ratio
21.0 x 10 ⁶ psi 144 GPa	0.325 lb/in ³ 9.00 g/cm ³	7% IACS 4 MS/m	9.1 ppm/°F 16.4 ppm/°C	<1.01	0.3

MECHANICAL PROPERTIES*

Temper	0.2% Offset Yield Strength ksi (MPa)	Ultimate Tensile Strength ksi (Mpa)	Minimum Elongation (%) *	Hardness (HV)	Minimum 90° Bend Formability R/T Ratio	
					Good Way (Longitudinal)	Bad Way (Transverse)
TM00	75-95 (515-655)	95-115 ksi (655-795)	22	190-290	0	0
TM02	90-110 (620-760)	105-125 ksi (725-860)	15	215-315	0	0
TM04	105-125 ksi (725-860)	115-135 ksi (795-930)	10	245-345	1	1
TM06	120-145 (825-1000)	130-150 ksi (895-1035)	6	270-370	2	2
TM08	140-170 (965-1170)	150-178 ksi (1035-1235)	2	305-405	5.0	8.0
TM10	165-195 (1140-1345)	175-210 ksi (1205-1450)	1	370-450	-	-

* Percent elongation valid for strip greater than 0.004" (0.10 mm) thick.

FORMS AVAILABLE

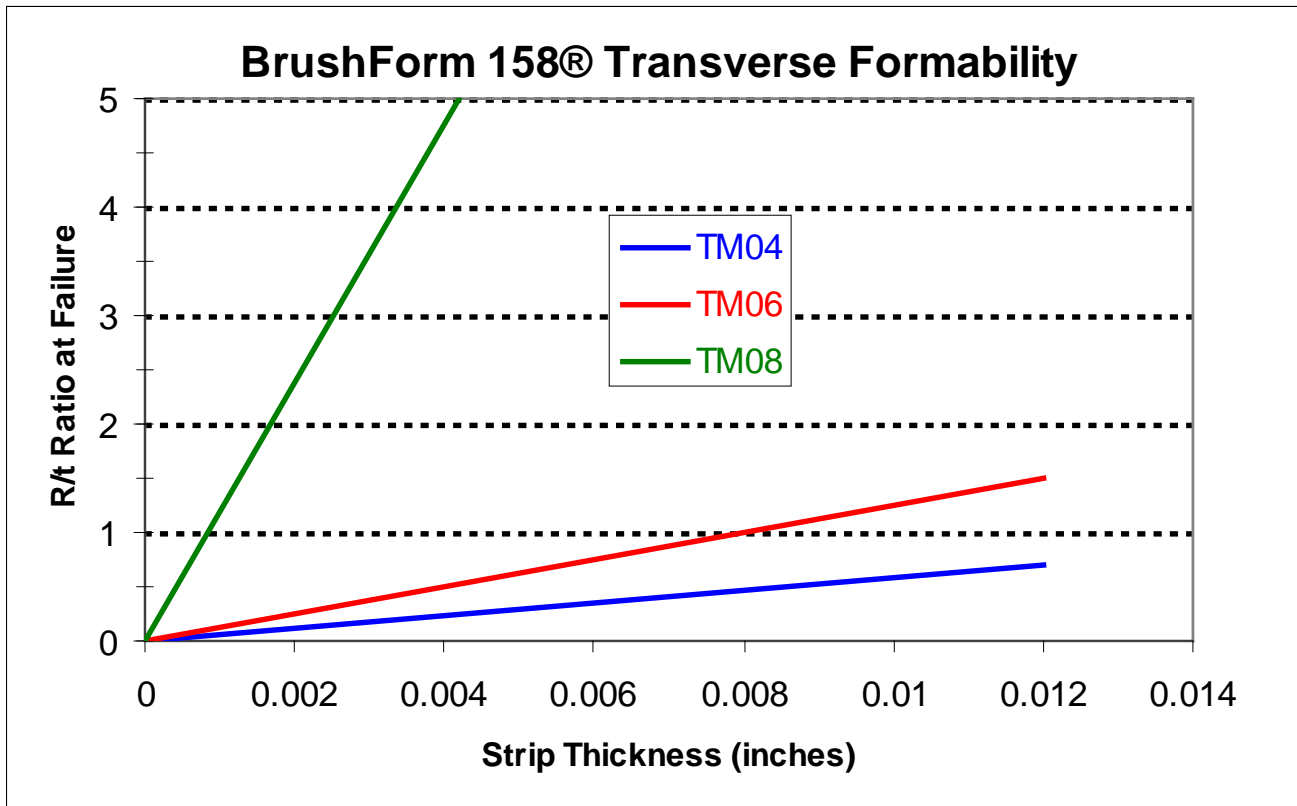
Mill Hardened Tempered Strip: 0.0015" (0.04mm) – 0.020" (0.5mm) gauge

SPECIFICATIONS

UNS C72900, ASTM B740

RELATED INFORMATION

Additional information on BrushForm® I58 availability, size capability and pricing can be obtained by calling 800-375-4205.



North American Service Centers – Sales Inquiries

For strip, wire and rod under 0.4" (10 mm) diameter

Elmhurst, IL

TOLL FREE: 800.323.2438

LOCAL: +(1) 630.832.9650

FAX: +(1) 630.832.9657

For plate, tube, bar, and rod 0.4" (10 mm) diameter and over

Warren, MI

TOLL FREE: 800.521.8800

LOCAL: +(1) 586.772.2700

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To obtain a complete list of Materion's global distributor/agent network, visit us online at www.materion.com/BrushAlloys/ContactUs.

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MATERION CORPORATION

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AD0072_0311

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